§ 194.10-20

deck and for installation of wire rope sway braces.

(e) Vans shall bear a label plate stating light weight, gross weight and weight of explosives. Gross weight shall not exceed 250 pounds per square foot of deck area.

§194.10-20 Magazine chest construc-

- (a) Magazine chests shall be of watertight metal construction with flush interior. The body and lid shall have a minimum thickness of 1/8 inch.
- (b) Permanent sun shields shall be provided for sides and top including the lid. These shall have a minimum thickness of ½-inch aluminum or 16-gage steel. Side shields shall be offset from the body a distance of 1 inch. The top shield shall be offset a distance of 1½ inches. Sun shields may be omitted when chests are installed "on deck protected," shielded from direct exposure to the sun.
- (c) Chests shall be limited to a gross capacity of 100 cubic feet.
- (d) Chests shall be secured to the vessel's structure by means of permanently installed foundation clips or bolts or a combination thereof. Lashings will not be acceptable.
- (e) Chests shall be provided with substantial hasps and staples for locking purposes.

§ 194.10-25 Ventilation.

- (a) Integral magazines. (1) All integral magazines shall be provided with natural or mechanical ventilation. Design calculations shall be submitted demonstrating that the system has sufficient capacity to maintain the magazine temperature below 100 °F. with 88 °F. weather air. Mechanical cooling may be used where ventilation requirements exceed 1,500 cubic feet per minute.
- (2) Ventilation systems shall be of watertight construction and shall serve no other space. Weather cowls shall be provided with a double layer of wire screen of not less than ½-inch mesh. Metal watertight closures shall be provided for use when the ventilation system is not in operation. A 2-inch IPS bypass with check valve shall be provided in parallel with at least one of

the ventilation closures to prevent pressure buildup.

- (b) Magazine vans. (1) All magazine vans shall be provided with natural ventilation sufficient to maintain the inside air temperature below 130 °F. with an assumed outside temperature of 115 °F.
- (2) Ventilation supply weather openings shall be located at least 6 feet above the deck. Exhaust terminals shall be located in the van overhead. Louvers or weather cowls with a double layer of wire screen of not less than ½-inch mesh shall be provided for protection of weather openings.

§ 194.10-30 Magazine sprinklers.

- (a) Sprinkler system required. (1) A manual control, hydraulic control, or automatic sprinkler system shall be installed in each magazine or magazine group. The control valve shall generally be in accordance with Specification MIL-V-17501 insofar as materials and test fittings are concerned. All systems shall be remotely operable from a control station on the freeboard deck and manually operable at the control valve location.
- (2) Where automatic systems are installed sprinkler heads shall be of the open head design so as to permit either manual or automatic operation.
- (3) Sprinkler systems shall be designed in accordance with the requirements of part 76 of Subchapter H (Passenger Vessels) of this chapter. Minimum total system capacity shall be based on 0.8 gallon per minute per square foot of overhead area.
- (4) The normally required fire pumps may be used for magazine sprinkling purposes. However, the use of the magazine sprinkling system shall not interfere with the simultaneous use of the fire main system.
- (b) Magazine vans. (1) A manual control sprinkler system shall be installed in each magazine van. The system shall be connected to the nearest fire main outlet by jumper hose. The hose shall be protected from physical damage by a grating or similar arrangement. The fire station valve shall serve as the sprinkler control valve.

(2) Sprinkler systems shall be designed in accordance with the requirements of part 76 of Subchapter H (Passenger Vessels) of this chapter, except that the system capacity shall be sufficient to provide a coverage of 0.4 gallon per minute per square foot of overhead area

[CGFR 67-83, 33 FR 1151, Jan. 27, 1968, as amended by CGD 82-063b, 48 FR 4783, Feb. 3, 1983]

§ 194.10-35 Labeling.

- (a) Labeling shall be in 3-inch block type lettering. Letters shall be red or white, whichever provides the better contrast against the background. On small chests the labeling size may be reduced to that consistent with the size of the chest so that the inscription may be placed in its entirety on the side or top.
- (b) The access door to magazines and magazine vans shall bear the inscription:

MAGAZINE

KEEP OPEN LIGHTS AND FIRE AWAY

KEEP DOOR CLOSED

REMOVE MATCHES AND LIGHTERS PRIOR TO ENTERING

(c) Magazine chests shall be marked in a conspicuous location, preferably the top, with the inscription:

MAGAZINE CHEST

KEEP OPEN LIGHTS AND FIRE AWAY

(d) Magazine chests used for blasting caps, detonators, or boosters shall be marked in a conspicuous location with the inscription as appropriate:

BLASTING CAP LOCKER

or

DETONATOR LOCKER

or

BOOSTER LOCKER

KEEP OPEN LIGHTS AND FIRE AWAY

(e) Magazine van, unless specifically approved as a portable magazine under provisions of 49 CFR 176.137 shall bear the additional statements on each side:

MAGAZINE

WARNING

DO NOT LIFT WITH CONTENTS

(f) Control locations for magazine sprinkler systems, in addition to the operating instructions required by §76.20–20 of Subchapter H (Passenger Vessels) of this chapter shall bear the inscription:

MAGAZINE SPRINKLER CONTROL

[CGFR 67-83, 33 FR 1151, Jan. 27, 1968, as amended by CGD 86-033, 53 FR 36027, Sept. 16, 1988; CGD 97-057, 62 FR 51051, Sept. 30, 1997]

Subpart 194.15—Chemistry Laboratory and Scientific Laboratory

§ 194.15-1 General.

- (a) Chemical and scientific laboratories shall be considered service areas, and as such shall be subject to the applicable requirements of §190.07–10(d).
- (1) Incombustible materials shall be used, insofar as is reasonable and practicable, for permanently installed laboratory furnishings and equipment, such as desks, file and storage cabinets, waste paper baskets, work benches, chair frames, etc. Working surfaces where chemical stores are used shall be of incombustible material.
- (2) Combustible materials may be used for other working surfaces and for temporary furnishings and equipment installed to facilitate a specific scientific mission.
- (b) Storage of all equipment, materials, etc., and cleanliness shall be consistent with sound laboratory practices. All items shall be securely stowed.
- (c) Provision shall be made for rapid removal of chemical spills and protection of the deck. In areas where chemicals will commonly be used, the deck shall be covered with a nonskid masonry or other suitably resistant material so fashioned that spillage will be contained and easily removed.
- (d) The access doors to the laboratory shall bear the inscription "Chemical Laboratory", or "Scientific Laboratory", in lettering meeting requirements of § 194.10–35(a).